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The Ohio State Engineer



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The Pressure Gauge

Out of the thousands of men who use Hercules Dynamite daily probably very few ever think of the experimental work that is done to make this dynamite meet their needs exactly. Yet this work is of vital importance in the maintenance of high standards.

In one of the laboratories of the Hercules Experimental Station at Kenil, N. J., stands a massive steel cylinder with a door at one end resembling the breech block of a 12-inch gun. This machine is called a pressure gauge.

By accurately measuring the pressure of the gases developed by the explosion of a small charge of dynamite within the cylinder, the pressure gauge provides one test for determining the strength of that explosive. These gases can be drawn off and analyzed. This analysis is highly important because for work underground, in confined spaces, an explosive must not only provide power to tear down the materials, but it must do so by producing gases non-injurious to those who inhale them. Moreover, the character of the gases indicates whether the explosive tested was made on a formula

so balanced that all ingredients contribute fully towards a useful purpose, or, as the chemist would say, whether detonation and combustion were complete.

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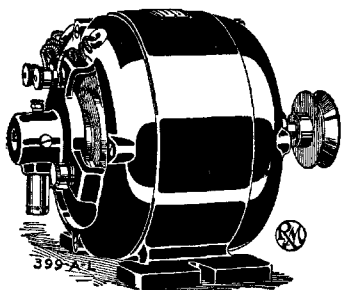
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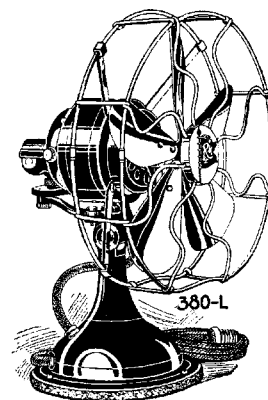
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Are you going to be a "drop-forged" engineer?

There are thousands of that kind and, soon or late, they learn with a shock that they can get just about so far, and no further

THREE big eastern university engineering societies held a joint meeting recently. They were alumni men of technical colleges. And they met to discuss the outlook of the college trained engineer.

"The trouble," said a speaker, "is that too many of us are 'drop-forged' engineers. We know our profession; but of Business, to which it is so closely related—we just don't know what it's all about."

In the files of the Alexander Hamilton Institute is the story of a graduate of a great engineering college. With all his training and his degree, he was a "drop-forged" engineer.

"When I left college I did not know the A B C of how to consider even the simplest of business problems," he wrote.

Upon leaving college, he started to work as an engineer for a big technical firm at \$70 a month. He is still with that firm. And this is what he writes:

"Today I am part owner of the firm and sole manager of it. *This hasn't been due to luck by any means*; but simply by putting into practice what anyone can get from the Modern Business Course and Service of the

Alexander Hamilton Institute."

It is not enough to know the technical side alone

The director of a western engineering college said recently: "The most dominant characteristic of the engineering profession is the preponderance of the commercial over the technical."

Step by step, the engineering enterprises that achieve big success, and make careers for engineers, are guided by the same fundamental laws and practices that rule modern business. And thousands of engineers have learned by bitter experience that without business training, technical training carries a man just about so far, and no farther.

A Course whose product is understanding

The Alexander Hamilton Institute was founded by a group of business men and educators who realized that modern business was developing specialists, but not executives; that somehow more men must be taught the fundamentals that underlie the operations of every department of business.

The Institute has only one Course. It takes a man out of college and gives him a working knowledge of all the departments of business.

Such a man receives in a few months of reading what ordinarily would consume years of practical experience. He finds in the Institute a more direct path

from where he is to where he wants to be. He has the satisfaction of carrying large responsibilities while he is still young. Naturally and inevitably he earns more than the average man of the same years and education.

For the "drop-forged" engineer who asks himself "Where am I going to be five years from now?" the Alexander Hamilton Institute has an encouraging story to tell. It is the story of the thousands of successful college men—many of them engineers—who have saved the wasted years; men who, thru the Course and Service, have added to their technical equipment the training which makes them understand what business is all about.

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